

Title (en)

DOUBLE BALANCED COMPACT MIXER USING MICROWAVE MONOLITHIC INTEGRATED CIRCUIT COLD FET QUAD

Title (de)

KOMPAKTER GEGENTAKTMISCHER, WELCHER EINE MIKROWELLENINTEGRIERTE SCHALTUNG MIT VIER KALTEN FETS VERWENDET

Title (fr)

MELANGEUR COMPACT DOUBLEMENT EQUILIBRE A QUAD DE TECS FROIDS EN TECHNOLOGIE MMIC

Publication

**EP 0943176 A1 19990922 (FR)**

Application

**EP 98924369 A 19980504**

Priority

- FR 9800891 W 19980504
- FR 9705509 A 19970505

Abstract (en)

[origin: FR2762942A1] The invention concerns a double balanced mixer with cold FET (11-14) quad (10), comprising couplers at 180 DEG for the quad (10) input/output accesses, said couplers being lambda /16 couplers (21, 22) with 3 lines directly coupled in cascade with the quad (10). The invention enables to reduce the space requirement by a factor of 5.4 in Ku-band with respect to the cold FET quad mixer using lambda /4 couplers.

IPC 1-7

**H03D 9/06**

IPC 8 full level

**H03D 7/14** (2006.01); **H03D 9/06** (2006.01); **H03D 7/12** (2006.01)

CPC (source: EP)

**H03D 9/0675** (2013.01); **H03D 7/125** (2013.01); **H03D 7/14** (2013.01); **H03D 2200/0023** (2013.01); **H03D 2200/0043** (2013.01); **H03D 2200/0074** (2013.01)

Citation (search report)

See references of WO 9851004A1

Designated contracting state (EPC)

DE ES FI FR GB IT SE

DOCDB simple family (publication)

**FR 2762942 A1 19981106**; **FR 2762942 B1 20000602**; CA 2259262 A1 19981112; EP 0943176 A1 19990922; JP 2000514988 A 20001107; WO 9851004 A1 19981112

DOCDB simple family (application)

**FR 9705509 A 19970505**; CA 2259262 A 19980504; EP 98924369 A 19980504; FR 9800891 W 19980504; JP 54778198 A 19980504